

REMARKS

I. Office Action Summary

Claim 1-40 are pending. In the Office Action mailed September 22, 2004, the Examiner rejected claims 1-30 under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,507,856 ("Chen") in view of U.S. Patent No. 6,300,947 ("Kanevsky"). The Examiner rejected claims 31-40 under 35 U.S.C. 103(a) as being unpatentable over Chen in view of U.S. Patent No. 6,681,388 ("Sato"). Applicants traverse these rejections for at least the following reasons.

II. Response to Rejection of Independent Claims

With regard to claim 23, it has been amended to clarify that "the template defines modifications to the document in order to adapt the document for display on a device other than an originally intended device." For example, a document might be created for display on one type of device (e.g., a desktop computer with a 15" screen) and then adapted for display on another type of device (e.g., a handheld device with a substantially smaller screen). As claimed in claim 23, the original document serves as the basis of the output of the modified document, with the template defining modifications in order to adapt the original document to the modified document. The template might define, for example, various actions (e.g., dropping, moving, table modifications, adding an element, etc...) that are applied to an element in the original document when a match occurs between the element in the original document and the template.

In contrast, Chen teaches a system for merging two document templates. (Chen, Fig 1). Chen does not describe modifying a document (e.g., a webpage) for display on a different device other than an originally intended device, such as due to limitations in the display size of the device (e.g., adapting a webpage originally created for display on a desktop computer to be

displayed on a handheld device). Rather, Chen describes a simplistic method for matching fields in one document template with fields in another document template, and then using the data in the matched fields in the first document template to populate the matched fields in the second document template. (Col 3, lines 49-56 ("A business process automation system may receive an XML message or document and its corresponding Data Type Definition (DTD), and generate a return XML message based on the return document DTD, with certain fields pre-filled from the first XML message"); Col 4, lines 40-54).

That is in Chen, the second document template serves as the basis for the output, with the first document template and its data only being used to populate the second document template. In contrast to Applicants' claim 23, the second document template in Chen does not define modifications to the first document template so as to alter the format in which the underlying data is displayed on a device. In Chen, the format of the display is set – it is the format of the second (i.e., the return) document template.

Thus, Chen does not teach or suggest "matching and applying a template to the information content, wherein the template defines modifications to the document in order to adapt the document for display on a device other than an originally intended device." Therefore, independent claim 23 and its dependent claims are all allowable. Claim 1 includes similar elements of a template that defines modifications to a document in order to adapt the document for display on a device other than an originally intended device, which is neither taught nor suggested by Chen. Therefore, independent claim 1 and its dependent claims are also allowable.

With regard to claim 27, it has been amended to clarify that the document tree represents an organization of information content in a document for display on a device. The document tree includes weight nodes that affect the display of the information content on the device and content

nodes, which represent the information content itself to be displayed on the device. Node weighting criteria are used to define and alter the organization of the information content in the document, for example by changing parent-child relationships in the document tree to produce a normalized document tree, thereby changing the document tree and the way in which the information content is displayed.

As previously described, Chen describes a merging of two templates. It does not teach or suggest the reorganization of a single document based on its own contents. Moreover, the passages cited by the Examiner do not teach or suggest a document tree having weight nodes that affect the display of information content and content nodes that represent the information itself to be displayed on the device. Additionally, the passages do not teach or suggest node weighting criteria used to alter parent-child relationships of the document tree, thereby altering the way in which the information content is ultimately displayed on a device.

Rather, the parse tree described in Chen is simply used to match fields and populate the return XML document. As described in Chen, "a DTD parser may be created for generating a return document template or a return document DTD parse tree, which can assist the document merge algorithm to prepare the return XML document." (Chen, col. 4, lines 12-20). "A document merging algorithm, in accordance with the invention, generates a return XML document, by either sequentially scanning the name tags from the template in an array structure, or recursively traversing the DTD tree node from the template in a tree structure, to match their counterparts in the XML DOM tree ... using the XML name tag map table." (Chen, col. 4, lines 40-46). Thus, the parse tree in Chen is only used to find matching elements in the first document template in order to populate the return document template. The template tree in Chen does not represent a format for displaying the information content nor does the template define alterations

to an original document in the way the information content of the original document is displayed, as is claimed by Applicants. Therefore, independent claim 27 and its dependent claims are allowable.


Claims 1, 16, 20, 31 and 39 all also relate to document tree or document object tree representations of the information content in a document. As previously described in relation to claim 23, a template or a template tree might be applied in order to alter the format in which the information content in the document is displayed. This might be done through pattern recognition, weighting heuristics and/or various other methods. As previously described, this is neither taught nor suggested by Chen, Kanevsky or any of the other cited references. Accordingly, independent claims 1, 16, 20, 31 and 39 along with all their dependent claims are allowable.

III. Conclusion

For the reasons previously described, independent claims 1, 16, 20, 23, 27, 31 and 39 are all in condition for allowance. Accordingly, all the dependent claims are also in condition for allowance. If any questions or issues remain, Applicants' attorney, Brian Harris, can be reached at his direct dial number of (312) 913-3303.

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Respectfully submitted,



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